



City of Kingman, Arizona

Classification: Engineering Technician I – CAD Operator
Department: Engineering
Accountable To: Assistant City Engineer
Created/Revised Date: January 2016
FLSA Status: Non-Exempt **Salary Grade:** 209 **Band:** B **EEO4:** 3

GENERAL DESCRIPTION OF POSITION

Performs computer aided drafting (CAD), management of the City's Geographic Information System (GIS) and AutoCAD databases, and limited design work in the preparation of civil engineering plans, maps and related materials; Works with the engineering computer database systems, inputting and retrieving information, developing reports and related assignments.

The Engineering Technician I is the entry-level class in the Engineering Technician series. This class is distinguished from the Engineering Technician II by the performance of more routine tasks and duties assigned to positions within the series related to providing engineering information and maintaining an efficient City GIS mapping and recordkeeping operation, utilizing a basic understanding of civil engineering practices.

SUPERVISION RECEIVED

Works under the general guidance and direction of the Assistant City Engineer and/or City Engineer.

SUPERVISION EXERCISED

None

ESSENTIAL DUTIES & RESPONSIBILITIES Essential Functions are not intended to be an exhaustive list of all responsibilities, duties and skills. They are intended to be accurate summaries of what the job classification involves and what is required to perform it.

- Provides technical engineering and property information to the public, other City departments, and outside agencies including architects, engineers, developers, designers, and utility companies.
- Researches a variety of engineering and real estate records in answering inquiries including legal descriptions, civil plans, blueprints, as-builts, and various other office files.
- Maintains and updates engineering databases of engineering drawings, land and utility record maps, and other associated databases utilizing computer aided design tools database applications, scanning applications, and other computer software and hardware.
- Performs routine design/drafting operations for engineering projects and may assist in preparation of cost estimates for projects.
- Operates GIS/CAD workstation to research City's GIS database on subdivisions, developments, and capital improvement projects; implement computer plotting as required.
- Assists in assigning the City's Addressing Policy; compiles monthly reports of new address or changes for review and approval.
- Collects and maintains a database of municipal information for data, diagrams, charts, and graphics presentation purposes from a variety of sources.
- Prepares and updates maps and drawings as needed for presentation purposes, or to reflect changes to streets, zoning, structures, improvements, infrastructure, etc.
- Drafts drawings for or from legal descriptions, dedications, annexations, local improvement districts, easements or condemnations. Prepares right-of-way, easement, and property drawings. Drafts topography from field survey notes.

- Researches records, maps and other data to obtain typical data such as location of sewer mains, water/sewer taps, water mains, hydrants, valves, storm drainages, street systems, etc. and zoning districts designations or special property assessments.
- Drafts detailed dimensional drawings such as those needed for comprehensive or system operating plans and projects.
- Inking in lines and letters on drawings as required; Drawing charts for representation of statistical data; Drawing finished designs from sketches; Using computer assisted drafting (CAD) equipment and software.
- Computes quantity take-offs, calculates areas and volumes for projects.
- Performs a variety of office related functions, including preparing maps, presentation materials, brochures, reducing printing materials, etc.
- Provides information and responds to inquiries from contractors, property owners, staff, and the general public regarding assigned public works projects.
- Maintains a variety of logs and records related to work assignments and drafting activities.
- Performs work in accordance with safety policies and procedures. Compiles information and prepares reports as required.
- Accurately read and interpret maps, specifications, drawings, and blueprints.
- Performs all duties in conformance to appropriate safety and security standards.
- Communicates and acts in a professional manner with the public, co-workers, and work contacts.
- Provides excellent customer service to all contacts.
- Regular attendance is an essential function of this job to ensure continuity.
- Performs all work duties and activities in accordance with City policies and procedures; follows safety policies and practices, works in a safe manner, and immediately reports unsafe activity and conditions to supervisor(s).

PERIPHERAL DUTIES:

- Answers phones and responds to inquiries from contractors, developers, property owners, staff, and the general public in verifying water and sewer locations.
- May serve on various employee or other committees as assigned.
- Performs related duties as assigned.
- Performs special assignments as requested.

WORK CONTACTS

- Frequent contact with the general public to verify water and sewer locations.
- Regular contact with utility companies to collect data on underground utility locations.
- Some contact with County GIS and Recorder's Office to obtain updated maps of record and ownership information.

DESIRED MINIMUM QUALIFICATIONS:

Education and experience:

- Graduation from high school diploma or GED equivalent, supplemented by two (2) years of related technical or college training in Algebra, Trigonometry, Physics, Land Surveying, Civil Engineering, Drafting, Computer-Aided-Design (CAD), Geographic Information Systems (GIS), Cartography, or a closely related field; and
- Minimum of one (1) year related experience in civil engineering drafting; or
- Any equivalent combination of education, experience and training which demonstrates the knowledge and experience to perform the work.

Necessary Knowledge, Skills and Abilities:

Knowledge:

Considerable civil engineering drafting experience to include use of AUTOCAD, Geographic Information Systems (GIS); Familiarity with commonly accepted civil engineering design guidelines and criteria; Drafting and design techniques; Principles of Algebra, Geometry and Trigonometry and application in solving engineering problems; Working knowledge of urban design principles, practices and methods; General knowledge of construction materials and methods used in public works projects; Computer operating systems and database programs; Symbols and terminology used in engineering

drafting; Standard MAG details and specifications; Some knowledge of applicable policies, laws, and regulations affecting Division activities; and Modern office practices, procedures and equipment.

Skills:

Skill in operating computer-aided civil drafting equipment and programs; Reading and interpreting construction drawings, plans and specifications; Operating listed tools and equipment; Preparing and maintaining clear, concise and accurate records and reports; Using computers and job-related software applications; Troubleshooting problems; Working in a team environment; Providing customer service; and Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the general public, etc. sufficient to exchange or convey information and to receive work direction; Read and interpret basic maps and blueprints.

Abilities:

Ability to: Effectively communicate orally and in writing; Prepare accurate quantity and cost estimates; Work effectively with multiple project managers on a variety of capital improvement projects; Meet deadlines and accept changes in project schedules; Accurately read and comprehend construction plans; Prepare, organize and maintain data, reports and systems; Perform required mathematical computations and apply appropriate algebra, geometry and trigonometry calculations through use of calculator/computer; Coordinate and organize work activities; Establish and maintain effective working relationships with coworkers, supervisor, other departments and the public; Understand and carry out written and oral instructions; Follow and maintain safety standards, and identify safety problems; Promote and adhere to safe work practices; Carry out assigned projects to their completion; Use appropriate tact and consideration in dealing with customer complaints and questions; Adapt to changing work priorities; Work independently, and as a team, to complete daily activities according to work schedule; and Use equipment and tools properly and safely.

SPECIAL REQUIREMENTS

- Valid Arizona Driver's license or ability to obtain one prior to employment.
- Skill in the use of civil computer-aided design/software, experience in the use of AUTOCAD, Geographic Information Systems (GIS), and care of computer equipment and drafting tools and instruments.

WORK ENVIRONMENT

The work environment characteristics attached to the job description are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. See Physical Demands.

Expected Behavior/Quality of Services:

Excellence is the responsibility of everyone at the City of Kingman. We lead by our core values in constant pursuit of excellence:

Commitment – Dedicate oneself to consistent and excellent public service.

Innovation – Implement unique, creative and cost-effective solutions.

Communication – Communicate in a positive, honest and productive manner.

Integrity – Adherence to high ethical standards.

Diversity – Promote inclusiveness and impartiality throughout the organization.

Personal Responsibility – Take initiative to achieve excellence and accept accountability, uphold confidentiality, know when to report indiscretions and inappropriate actions even when it may be uncomfortable to do so, take responsibility for your work environment.

Respect – Demonstrate a high regard for others, support each other.

Teamwork – Promote and encourage cooperative efforts, open communication and trust, encourage positive feedback.

All City employees are expected to conduct themselves consistent and in support with the above values.

SELECTION GUIDELINES:

Submittal/review of employment applications, screening/rating of application in relation to training and experience to job description and overall presentation and job history/stability, oral interview, reference and background check. Supplemental job related tests may be required.

DISCLAIMER:

The above statements are intended to describe the general nature and level of work being performed by individuals assigned to this position. They are not intended to be an exhaustive list of all responsibilities, duties, and skills required of personnel in this position. This job description is subject to change as the needs and requirements of the position changes.

EMPLOYEE SIGN OFF:

I have read through the job description and have a good understanding of the requirements for my performance in this position and find it to be an accurate description of the demands of this position. I acknowledge it is incumbent upon me to seek clarification from my supervisor/manager for any questions I may have regarding the requirement/responsibilities of my position. I also acknowledge that I can fulfill the essential functions of my position. Should I need to seek reasonable accommodations, I acknowledge I will contact my supervisor/manager or Human Resources to pursue options.

Employee Signature:_____ **Date:**_____

Employee Printed Name:_____